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Judging the Performance of the 2002 Farm Bill

Bruce A. Babcock
Iowa State University, babcock@iastate.edu

Chad E. Hart
Iowa State University, chart@iastate.edu

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Judging the Performance of the 2002 Farm Bill

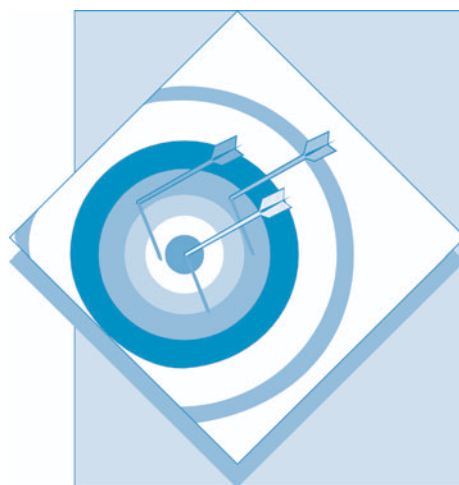
Bruce A. Babcock
babcock@iastate.edu
515-294-6785

Chad E. Hart
chart@iastate.edu
515-294-9911

The 2002 farm bill has been criticized from day one. Free-trade advocates criticized the significant increase in domestic subsidies for U.S. farmers at a time when the rest of the world was seemingly moving toward more liberalized production and trade. Small-farm advocates criticized the ability of large farms to bypass payment limitations through the use of commodity certificates. Conservation advocates thought they had accomplished a major feat with the Conservation Security Program, but implementation rules and subsequent funding cuts have shown that the program will have little short-term impact. And rural development advocates criticized the bill for its continued focus on supporting commodities rather than rural income enhancement.

Most groups criticize the farm bill because they would like to accomplish something different with the legislation. Disagreement and debate about the objectives of farm policy is a critical part of the policy discussion. But it is also crucial to know if the current commodity programs are in fact accomplishing what Congress wants them to do. If not, then they should be reformed, even if Congress does not alter its policy objectives.

It is not easy to pin down what farm programs are supposed to accomplish. The rhetoric of program defenders offers little guidance because the arguments employed are



usually based on myths rather than facts. For example, farm programs are often touted as providing consumers with inexpensive food when the reality is that the retail price of food bears little relationship to the price of supported commodities. Since 9/11, some say we need farm programs for national security reasons when almost all analysts suggest that aggregate production of food would change little if we did away with the programs. Others say that current farm programs enhance rural vitality. But the data show that the least economically viable rural regions are those that have become most dependent on farm subsidies. The biggest myth is that farm programs help vulnerable small family farmers when it is abundantly clear that it is the large commercial operations that are helped the most.

Judging Congress by its actions instead of its words, we conclude that the primary objective of current commodity programs is to support income for the U.S. field crop sector. Furthermore, because Congress set up crop-specific sup-

port levels, we also conclude that Congress wants to support income on a crop-by-crop basis. Various interpretations of what is meant by farm income could be made, but because Congress has little control over production costs, an appropriate measure of Congress's intent is to spend money so that total revenue for each supported crop does not fall below a specified level. We calculate this level for each crop by simple arithmetic.

The target for each crop's revenue is assumed to be expected production times the loan rate *plus* the maximum countercyclical payment rate times base acreage times base yield for the countercyclical payment program *plus* the direct payment rate times base acreage times base yield for the direct payment program. These calculations result in target revenues of approximately \$25 billion for corn and \$15.5 billion for soybeans. Given these targets, a taxpayer-cost-efficient farm program would spend money to bring revenue up to the target level when market income falls short of the targeted amount. When market revenue exceeds this amount, then an efficient program would cut off support.

DO CURRENT PROGRAMS HIT THEIR TARGETS?

Figure 1 shows that current farm programs have done a poor job at meeting their objective for corn and soybeans. In 2002, market revenue for corn fell short of the target amount by about \$3.8 billion, yet farm programs paid out only \$2.1 billion. In 2003, corn farmers received \$2.1 billion in support, yet their market income was about equal to the target level. And in

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2004, market income fell short of the target by \$1.4 billion, but we estimate that payments will exceed \$7 billion. For soybeans, market incomes exceeded target incomes in 2003 and 2004 and the shortfall in 2002 was only \$130 million. But total payments exceeded \$2.1 billion over this period.

When a policy tool fails to hit a target, the usual explanation is that the wrong tool was used. In 2002, market income was low because U.S. aggregate yield was below trend levels and prices did not increase enough to compensate. The only support producers received in 2002 (ignoring ad hoc disaster payments for now) was in the form of direct payments and these payments were not large enough to compensate for low aggregate yields. Furthermore, in 2002 many corn regions had good yields. The low aggregate corn yield was caused by drought in the western Corn Belt. But all regions received direct payments, regardless of regional income levels.

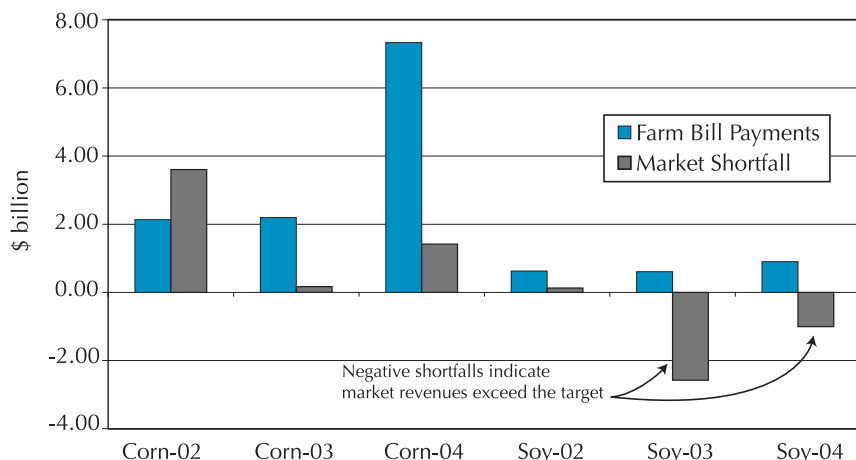
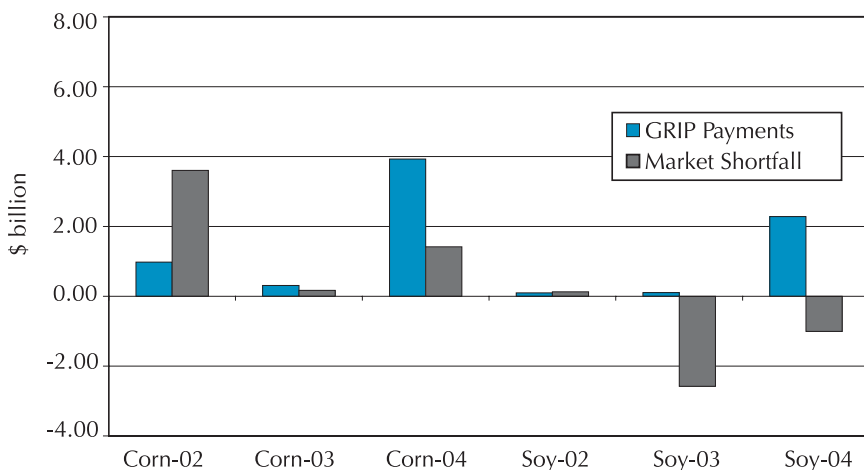
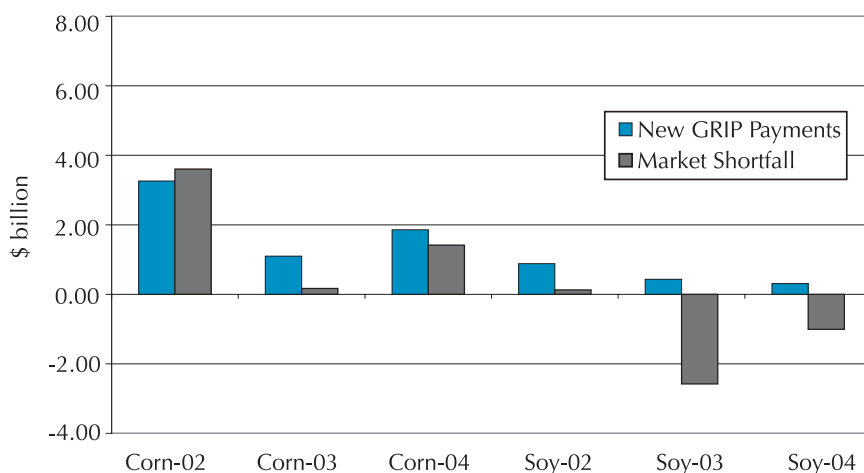
The largest miss occurred in the current 2004 crop year. Record yields led to record production. Prices fell dramatically, but there was only a small shortfall in market revenue. This type of low-price, high-yield year is what really triggers payments under current farm programs. We project that the current corn program will overshoot its target by almost \$6 billion.

The soybean misses largely have been caused by direct payments arriving even when soybean revenue meets or exceeds its target amount. In addition, harvest prices in 2004 were low enough to trigger loan deficiency payments, even though subsequent price increases have enabled farmers to market their crops at much higher prices. Thus, soybean farmers are projected to receive almost \$1 billion in payments for their 2004 crop even though total market revenue is projected to exceed the target level by \$1 billion.

The mismatch between regional payments received and regional market revenue is more pronounced with soybeans. Much of the 2003 price strength was a result of very poor yields in Nebraska, western Iowa, and South Dakota. Yet farmers in these regions received the same direct payment as farmers in regions with normal yields. This illustrates the poor performance of current farm programs in compensating for low regional yields. Some might say that disaster payments in 2002 and 2003 partly compensated for these low regional yields. But if Congress recognizes the need for supplemental assistance caused by widespread low regional yields, wouldn't it be sensible to develop a new farm policy tool that automatically accounts for low yields as well as low prices? To find such a tool, Congress could look beyond USDA's Farm Service Agency and focus its attention on another USDA agency.

INCOME SUPPORT FROM THE RISK MANAGEMENT AGENCY

For the 2005 crop year, we estimate that almost 6 million acres of U.S. corn and soybeans will be insured with Group Risk Income Protection (GRIP). This product provides a guarantee that county revenue will not fall below 90 percent of the product of expected market price and trend yield. This product seems ideally suited to hit congressional revenue targets. Either low prices or low yields can trigger a payment. But low prices by themselves will not trigger a payment if yields are high enough to raise revenue above the 90 percent level. And low yields will not trigger a payment if prices are strong enough. In addition, if payments arrive when aggregate market revenue exceeds its target level, then at least the payments would flow to those regions that experienced inadequate revenue because of low yields.

FIGURE 1. DO FARM BILL PAYMENTS ARRIVE WHEN REVENUE IS LOW?**FIGURE 2. WOULD GRIP PAYMENTS ARRIVE WHEN REVENUE IS LOW?****FIGURE 3. WOULD MODIFIED GRIP PAYMENTS ARRIVE WHEN REVENUE IS LOW?**

To determine how well GRIP might perform as a commodity policy, we simulated GRIP payments to farmers assuming that a 90 percent GRIP policy was given to all corn and soybean farmers in 2002, 2003, and 2004. Figure 2 shows that GRIP does not perform as well as one might expect. For corn, GRIP would have overcompensated farmers in 2004 and undercompensated them in 2002. For soybeans, GRIP did a good job at not overcompensating farmers for aggregate losses in 2002 and 2003, but GRIP would have greatly overcompensated farmers in 2004.

The reason GRIP performs so erratically is that its guarantees are based on futures prices. In 2002, the expected corn price was \$2.30/bu and the expected soybean price was only \$4.53/bu. These prices are not adequate to provide the level of protection desired by Congress. In 2004, expected prices were dramatically higher at \$2.93 and \$7.27. The overcompensation in 2004 from GRIP is a direct result of market prices providing more protection than desired by Congress. While a market-based revenue product is desirable as an insurance product, it is less desirable in a national commodity policy.

A NEW REVENUE-BASED COMMODITY POLICY

An easy fix for one of the weaknesses of GRIP as a commodity policy is to replace futures prices with a fixed price to calculate county revenue guarantees. An easy fix for the overcompensation that occurs when farmers use low harvest prices to maximize marketing loan benefits is to calculate payments based on season-average prices, much like we do with the current countercyclical payment program. Figure 3 shows that such a modified GRIP program would closely match payments with revenue shortfalls if all corn and soy-

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grams, and grazing and water subsidies. For 1999, the addition of the \$5.47 billion in PFC payments turns into a \$12.88 billion increase in reported support. Figure 2 shows a breakdown of our revised estimate of 1999 agricultural support. Marketing loan benefits (through loan deficiency payments or marketing loan gains) account for 30 percent of this support. PFC payments, mar-

ket loss assistance payments, and price support programs for dairy, sugar, and peanuts each account for roughly 20 percent of the support. Crop insurance represents 5 percent, while other agricultural programs contribute the remaining 9 percent.

The end results of the cotton dispute are still uncertain. How Congress and the administration will

respond to this ruling, either in modifying the current farm bill or in creating the next farm bill, is unknown. But the cotton ruling, combined with the federal budget pressures we are now seeing in the United States, has the potential to set off substantial changes in U.S. agricultural policy. ♦

Judging the 2002 Farm Bill *Continued from page 3*

bean farmers received such a policy instead of current farm programs.

We calculated the Figure 3 results assuming that county revenue guarantees are based on a \$2.73 corn price and a \$6.00 soybean price. A payment was made to all farmers in a county if the product of the season-average price and the yield per planted acre fell below 90 percent of the guarantee. Figure 3 shows that this new policy tool would have avoided most of the overcompensation of corn and soybean farmers in 2004. The lower overcompensation that occurred in 2003 results from payments being targeted to those counties with low yields. For corn in 2002, the new policy would have come much closer to hitting the revenue target than either the current farm program or the market-based GRIP.

WTO OUTLOOK

A GRIP-type farm program would be classified as "Amber Box" under the current WTO agriculture agreement and the Doha Round framework because payments are tied to the current price level and the farmers' choices in planted acres. The pro-

gram could be modified to fit within the "Blue Box" or the "Green Box." However, the modifications might limit the effectiveness of the program. The Blue Box modifications would allow payments to be triggered by price declines or regional yield disasters, but the payments could not change with national and/or farm shifts in planted areas. Green Box modifications would allow price and/or yield reductions to trigger payments and some updating for regional shifts in crop production; but shifts in farm production would not be accounted for and the program would require larger price and/or yield declines to trigger payments.

POLICY IMPLICATIONS

Matching up policy tools with policy objectives is critical for program cost-efficiency. It is not surprising that our current mix of farm programs does a poor job of matching program support and market revenue shortfalls. These programs are with us for a variety of reasons: program inertia, opportunism concerning budget scoring, and WTO considerations. They are not the result of a deliberate process of choosing program instruments for their efficiency in meeting program objectives.

A more deliberate process would reveal that our commodity programs consist of two programs that protect against low prices, one program that delivers aid even when farm income is at an all-time high, and an ad hoc disaster system that pays out when regional production is low. In addition, we have a crop insurance program that also pays out when low yields or low prices occur and that offers a program, GRIP, that could easily be modified to replace all commodity and crop insurance programs for major field crops.

Rationalizing commodity, disaster, and crop insurance programs by replacing them with a single-payment program based on a modification of GRIP would increase program transparency, eliminate program duplication, reduce administrative costs, and largely eliminate over- and undercompensation of farmers. Perhaps budget pressures will lead congressional leaders and farm groups to take a fresh look at the current structure of farm programs with an eye toward increasing the efficiency of taxpayer support for farm income. ♦